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AUTHOR Reinertson, Jacquelyn
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ABSTRACT

In 1979, a study was conducted at Charles Stewart Mott Community College (MCC) to draw a profile of "successful" students and determine the level of reading achievement necessary for successful college work. "Successful" students were defined as those who had completed most of their coursework and were nearing graduation; therefore, the sample was drawn from students enrolled in advanced sophomore courses or in courses offered in the second semester of one-year programs. The study involved: (1) the administration of questionnaires to 828 students to obtain information on their major, sex, age, ethnicity, credit load, employment, future educational plans, and participation in a reading improvement course; (2) the administration of the Nelson-Denny Reading Test to these students; (3) a comparison of the characteristics of "successful" students with those of the entire student body, as determined in a Fall 1978 study; and (4) a comparison of the reading scores of "successful" students with scores earned by Fall 1978 entering students on the Cooperative English Tests: Reading Comprehension, Form B. The study revealed a great deal of variation in the reading skill levels of "successful" students, with 134 reading below the tenth grade level, thus identifying no minimal level below which MCC students do not succeed. The study report details findings by program area and includes the questionnaire. (JP)

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A STUDY OF "SUCCESSFUL" STUDENTS AT C. S. MOTT COMMUNITY COLLEGE: 1979 FLINT, MICHIGAN

By

Jacquelyn Reinertson
C. S. Mott Community College
1401 East Court Street
Flint, Michigan

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A STUDY OF "SUCCESSFUL" STUDENTS
AT C. S. MOTT COMMUNITY COLLEGE: 1979
FLINT, MICHIGAN

Jacquelyn Reinertson

I. DESIGN AND POPULATION

In the winter semester of 1979 (February through May), this investigator conducted a research study at Charles Stewart Mott Community College (MCC) to determine the levels of reading achievement necessary for successful completion of the various programs and majors at the college. A "successful" student was defined as one who had completed most of his/her classwork and was nearing graduation. That level of "success" was evidenced by his/her enrollment in an upper-level course. Therefore, the subjects who participated in this study were chosen because they were in an upper-level class, i.e., advanced sophomore courses or courses offered in the second semester of one-year programs. A total of about seventy (70) classes were identified in that category in the Class Schedule: Winter Semester, 1979. Sixty-three of those classes were tested. Two instructors, both in Apprenticeship and Technology, refused to participate due to time/material pressures, while one instructor simply refused (Business Division). Four other classes were identified as including the same students as other classes that had been tested. Indeed, the last classes that were scheduled to be tested had only one student, each, who had not been tested elsewhere. Therefore, the data tends to reflect the total population rather than a sample. Subjects in this study numbered 828. MCC graduated

654 students in May, 1979. All of this is to say that the research reflects an exhaustive search.

All of the testing was done by the investigator and completed in fifty minutes for each group. Students were informed of the nature of the project, their anonymity, and their right to leave. Surprisingly, less than a dozen students chose to leave.

In order to gather descriptive data on the "successful" students, subjects completed a questionnaire (Appendix A) as to their program, major, sex, age, credit hours, employment, whether they had taken a reading-improvement course, and their future education plans.

The subjects also took an I-E Scale, but since that instrument proved insignificant or unexplainable in most ways, that data will be excluded here.

Subjects completed the Nelson-Denny Reading Test: Form A, which is a standardized, nationally-normed test designed to measure reading in terms of vocabulary, comprehension and rate. The test is designed for grades nine through sixteen (college senior level) and it requires thirty minutes of actual working time. It correlates .73 with the Cooperative English Tests: Reading Comprehension, Form B (COOP) which MCC uses to test incoming freshmen.

In order for the findings in this research to be meaningful, it is necessary to report some of the characteristics of the entire student population, that is, all freshmen and sophomores. In effect, how does the "successful" student differ from the total population of MCC?

Because this study was done in the 1978-79 school year, the following statistics were taken from the "Fall Enrollment and Compliance Report of Institutions of Higher Education, 1978" which is sent to the Department of Health, Education and Welfare in Washington, D.C. The total population of MCC in the fall of 1978 included:

Males	4197	(46.4%)
Females	4848	(53.6%)
Freshmen	6243	(69.21%)
Sophomores	2561	(28.39%)
Postgraduates	217	(2.41%)
Foreign Students	11	(0.11%)
Black Students	1878	(18.93%)
Native Americans	105	(1.06%)
Asians	66	(0.67%)
Hispanics	114	(1.15%)
White Students	7745	(78.08%)
Full-time Students	2525	(27.95%)
Part-time Students	6517	(72.05%)

About half of the students entering MCC in the fall of 1978 took the reading placement test (COOP).

The results of those tests appear in Table 1 below:

Table 1. READING SCORES FOR ENTERING STUDENTS AT MCC FALL, 1978 (N: 1060)

SUBTEST	RAW SCORE RANGE	AVERAGE RAW SCORE $\bar{x}$	S.D.	PERCENTILE BAND FOR AVER.SCORE	APPROX. GRADE LEVEL
Vocabulary	1-58	25.39	12.78	15-38	11
Comprehension	1-29	11.87	5.62	10-37	11
Speed of Comprehension	1-46	15.84	8.59	14-32	10
TOTAL	3-128	53.09	24.88	14-30	10.4

In other words, the students who entered MCC in the fall of 1978, had mean (average) test scores ranging between tenth and eleventh grade level.

About 30% (N: 322) of those 1,060 students, or 15.45% of the new entrants, took a reading-improvement class. Their average reading score was 9.5 grade level, while those who did not take a reading-improvement class averaged a twelfth grade reading level.

STUDENTS WHO TAKE READING	+	STUDENTS WHO DO NOT TAKE READING	=	ALL STUDENTS TESTED: FALL, 1978
(9.5 Average Reading Level)		(12.0 Average Reading Level)		(10.4 Average Reading Level)

II. RESULTS: READING SCORES

With that background information about the incoming students and the general student population, comparisons with the "successful" students convey more information. The reading test results for the entire research group ("successful" students) is summarized in Table 2 following:

Table 2. NELSON-DENNY READING TEST SCORES FOR "SUCCESSFUL" STUDENTS, 1979 (Total Research Group)

VARIABLE	NUMBER TESTED	PERCENTILE RANGE*	PERCENTILE AVERAGE	S.D.	APPROX. GRADE LEVEL
Vocabulary	828	1-99	34	15.64	13.3
Comprehension	815	1-99	26	13.10	12.4
Rate (Words/minute)	804	1-99	45	90.16	13.1
TOTAL	815	1-99	29	26.79	13.1

*Percentiles are based on national sophomore norms.

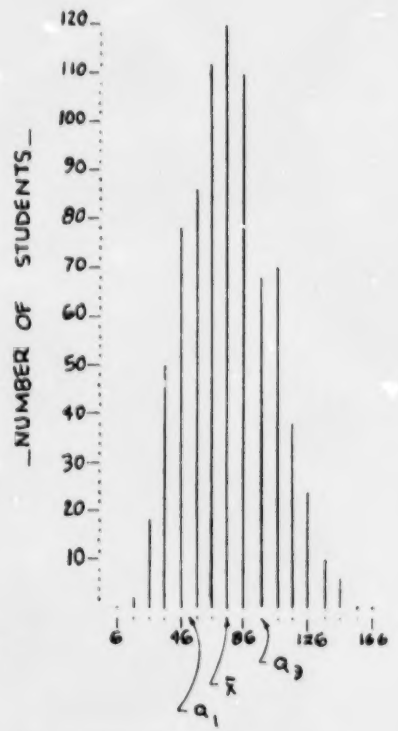
Students in upper-level classes have an average college freshman reading level. It is important to note, however, that the scores encompass the widest possible range (percentiles 1-99). The histogram of the students' total reading scores resembles a normal curve (Figure 1). Therefore, there is huge reading skill variability among the "successful" students. According to test results, seven students of the 828 tested read below seventh grade level, 76 read below ninth grade level, 134 read below tenth grade level, while 253 students read above college sophomore reading level.

In other words, there is no particular minimal reading level below which students at MCC do not succeed, at least none that this instrument is designed to test (grades 7-14). The distribution curve shows no steep slope or sudden drop.

FIGURE (1)

- TOTAL READING SCORES -

DISTRIBUTION OF TOTAL VOCABULARY - COMPREHENSION RAW SCORES:*
TOTAL GROUP (N=815)



(Interval width is 2)

*Nelson-Denny Reading Test: Form A

The test results were also subgrouped according to divisions to ascertain whether those subgroups would indicate any significant information. Those results are summarized below in Table 3:

Table 3. READING SCORES* ACCORDING TO ACADEMIC DIVISION

DIVISION	NUMBER	AVERAGE TOTAL READING PERCENTILE**	AVERAGE APPROX. GRADE LEVEL	PERCENTILE RANGES*
Apprentice and Technical Div.	91	14	11.7	1-94
Business and Management	135	29	13.1	1-99
Fine Arts and Community Services	31	39	13.6	1-99
Nursing and Allied Health	176	33	13.3	1-96
Language, Literature & Philosophy	111	36	13.5	1-99
Social Science & Physical Education	226	26	13.0	1-98
Science & Math	45	41	13.8	1-99

* Nelson-Denny Reading Test: Form A
** National norms for grade 14 (college sophomore)

The scores for divisions were significantly different ($P<.0000$) according to a one-way analysis of variance, but it is important to remember that two of the upper-level courses which were not tested were in the Apprentice and Technology Division. Furthermore, there are more one-year programs in that division and they tend to require skills other than verbal, for the most part.

Again, the ranges are enormous. It seems that no division is without students with minimal reading skills and also students with highly developed reading skills.

When the population was subdivided into males and females, the females had slightly higher reading scores, but an analysis of variance proved that difference to be only slightly significant ($<.04$). That level of significance is usually disregarded with groups so large.

There were 29 one- and two-year occupational programs included in the study. Nine of them had fewer than ten subjects in the study. Statistics with such small numbers are not considered valid and, therefore, those scores were not manipulated for significance. They are summarized on the following page in Table 4 (See page 8), but the data must be treated cautiously. In other words, it may be interesting but probably not valid due to the small groups.

III. RESULTS: DEMOGRAPHIC

The demographic questionnaire data are summarized in Table 5 following (See page 9).

TABLE 4

OCCUPATIONAL PROGRAM DATA: TOTAL READING SCORES, FUTURE EDUCATIONAL PLANS, ACCUMULATED CREDITS

PROGRAMS	TOTAL READING SCORES			GO ON TO 4-YR COLL?			ACCUMULATED CREDITS	
	N	MEAN	S.D.	LIKELY	MAYBE	PROB.NOT	MEAN	S.D.
Construction Technology	4	50.50	17.08	1	2	1	31.75	18.82
Electronic Technology	3	95.33	46.25	2	0	1	37.33	3.05
Industrial Technology	6	88.17	33.83	2	3	1	51.00	19.52
Mechanical Technology	63	58.65	22.89	12	18	33	31.80	26.19
Technical Specialist	1	38.00	-----	0	1	0	15.00	-----
Accounting	8	79.13	25.23	3	1	3	43.29	14.06
Banking Management	3	67.67	44.23	0	0	3	38.00	36.77
Business Data Process.	31	83.39	29.09	10	12	6	55.90	54.42
Food Management Tech.	5	66.60	36.61	1	1	2	22.75	15.48
General Business	34	77.27	23.17	20	7	7	36.55	17.21
Bus. & Industry Manage.	40	70.82	24.11	25	9	6	37.95	14.38
Paralegal Technician	19	83.06	32.20	7	7	5	43.60	17.88
Merchandizing Admin.	7	66.00	23.78	4	2	1	41.29	35.38
Secretarial	22	72.27	22.11	2	6	14	30.14	18.65
Teacher Aide	9	61.78	26.93	3	4	2	18.78	16.72
Interpreter for Deaf	10	103.00	36.81	5	2	0	63.33	34.92
Nursing (RN)	67	79.31	20.35	39	21	6	64.59	20.13
Cyto Technology	1	67.00	-----	0	1	0	50.00	-----
Assoc. Comm. School Dir.	10	59.20	16.63	5	5	0	32.00	10.37
Child Care Aide	22	57.41	29.54	5	11	6	38.55	17.05
Criminal Justice	28	73.79	25.99	17	6	4	31.85	21.22
Fire Administration	13	66.39	20.75	0	3	10	22.77	26.14
Labor Studies	13	81.25	34.26	5	5	3	28.60	20.32
Recreation Leader	14	56.29	15.49	4	8	2	30.14	21.15
Social Work Technician	28	68.32	25.58	13	11	2	48.50	19.12
Dental Assistant	14	68.36	10.85	1	4	8	38.86	10.37
Nursing (LPN)	32	65.19	17.26	4	12	16	38.30	14.33
Medical Assistant	11	88.64	23.73	1	3	7	49.30	17.64
Emergency Medical Tech.	23	86.74	18.33	3	7	10	69.60	58.91
Gerontology	7	94.86	22.73	4	1	2	36.86	10.90
Gen. Studies (Undecided)	14	83.93	22.98	10	3	1	34.62	13.67
Dental Hygiene	41	82.78	24.32	14	15	0	95.68	31.46

TOTAL 603

TABLE 5

DEMOGRAPHIC DATA: TOTAL RESEARCH GROUP (N:828)

	MINI-MUM	MAXI-MUM	MEAN	S.D.	MODE(s)	CREDIT LOAD 1-10 %	CREDIT LOAD 11+ %	YES	NO	MOST LIKELY	MAYBE	PROB-ABLY NOT	ALREADY HAVE
Age	17	67	26.45	8.2	20								
Yr. began college first time	1922	1979	1974	5.02	1977								
Current credit load	2	24	10.97	4.31	12	310 (39.6)	472 (60.4)						
Accumulative credits to date	0	270	46.70	32.97	45								
Hrs. work per wk.	3	90	29.92	14.35	40								
Vocab. raw scores	4.00	92.00	37.33	15.64	39								
Comprehension R.S.	2.00	70.00	38.23	13.10	42								
Rate in words/min.	74.00	639.00	262.89	90.16	224								
Total Voc-Comp R S	6.00	162.00	75.65	26.79	76								
I-I scores	0.00	22.00	9.68	3.89	10								
Take reading course?								257 (32.2)	540 (67.8)				
Intend to go to 4-year college?										385 (47.83)	218 (27.08)	187 (23.23)	15 (1.86)
Do you work?								504 (63.4)	291 (36.6)				
full-time?								238 (47.8)					
part-time?								260 (52.2)					
Number of black students		65											
Number of deaf students		1											

"Successful" students at MCC have an average age of 26.45 yrs., which is very nearly the average age of our entering students, which is "over 26". On the average, the subjects entered college four years ago, which means that they are taking twice as long to finish as is considered normal. The obvious reason for that pace is that 63.4% of them are employed an average of 30 hours per week. Half of them work full-time and half of them work part-time. Half of them intend to go on to a four-year college while 27% consider that a possibility. In other words, less than a quarter of the successful students expect to terminate their schooling at MCC.

Male and female "successful" students at MCC differ in a number of respects. There are more females (60%) than males (40%) in upper-level classes. Among the entering freshmen of fall, 1978, 53.6% were females while among the exiting students that year 60% were female. The percentage of males decreases from 46.4% at entrance to 40% at exit in the random year chosen for this study.

Women at MCC tend to be older than men (27.3 vs. 25.2). Women are likely to take a variety of credit loads (1-16+), while men tend to take either a very small credit load or a very substantial credit load. Employment statistics likely explain that credit difference. (See Table 6 following)

Table 6.

EMPLOYMENT STATISTICS FOR "SUCCESSFUL" MALE & FEMALE STUDENTS AT MCC: WINTER, 1979

VARIABLE	FEMALES	MALES
Number	490 (60%)	326 (40%)
*Employed	259 (51.5%)	244 (48.5%)
**Full-time?	77 (30.4%)	161 (65.7%)
**Part-time?	176 (69.6%)	84 (34.3%)
Average Hours/week	24.52 (S.D.= 12.54)	35.88 S.D.= 13.79)

*P <.00001 (Analysis of variance)
**P <.0001

In summary, male students work more full-time jobs and average more working hours per week than female students. It is interesting to note that only six of the 490 female students in this study listed "homemaker" as an occupation and not one of them listed the time they work at home as "hours employed per week."

The educational plans of male and female students are summarized in Table 7 below.

Table 7. FUTURE EDUCATIONAL PLANS FOR "SUCCESSFUL" STUDENTS AT MCC: WINTER, 1979 (N: 816)

GO ON TO A 4-YEAR COLLEGE?	FEMALES	MALES
Most Likely: Number	226	158
% Total	28.2%	19.7%
% Sex	47.0%	49.25%
Maybe: Number	145	72
% Total	18.1%	9.0%
% Sex	35.1%	22.4%
Probably Not: Number	100	86
% Total	12.5%	10.7%
% Sex	20.8%	26.8%

Men and women tend to divide themselves into "traditional" vocational preparation at MCC. For instance, there was one female and 90 males in the Apprentice and Technical Division while the Nursing and Allied Health Division was comprised of 148 females and 25 males. Language, Literature and Philosophy had 80 females and 30 males. Other divisions were more balanced.

IV. AGE

It became clear quite early in the statistical analysis that the age of students had a positive relationship to their reading scores. That information is summarized in Table 8. (Following page)

TABLE 8

DEMOGRAPHIC DATA: AGE GROUPS

VARIABLE	AGES 17-22 Yrs.	AGES 23-30 Yrs.	AGES 30 & Over	STATISTICS	D.F.	P
Number (%)	334 (42.28)	236 (29.87)	220 (27.85)			
Females (%)	186 (55.19)	133 (55.65)	161 (71.56)	$X^2 = 17.64$	2	.0001
Males (%)	151 (44.80)	106 (44.35)	64 (28.44)			
Mean Accumulated Credits (S.D.)	37.57 (23.01)	55.38 (41.15)	50.93 (32.30)	F = 23.47	764	.0000
Mean Total Reading Score (S.D.)	67.18 (23.57)	79.94 (24.23)	85.41 (28.93)	F = 38.17	789	.0000
Approximate Grade Levels	12.4	13.4	13.8			
Employed (%)	232 (79.67)	151 (64.80)	117 (53.67)	$X^2 = 14.75$	2	.0006
4-Year College? Likely (%)	168 (49.85)	121 (52.16)	90 (40.54)	$X^2 = 12.64$	6	.04
Maybe (%)	83 (24.63)	66 (28.45)	64 (28.83)			
Probably Not (%)	82 (24.33)	42 (18.10)	61 (27.48)			

Therefore, the older students at MCC tend to read better, are less likely to be employed (although 53.67% are), and they are less likely to aspire to a four-year college than are younger students.

V. BLACK STUDENTS, DEAF STUDENTS

There were 1,878 black students in the entire student population in the fall of 1978, and yet there were only 65 in this study. Black students accounted for 18.93% of the entering freshmen in the fall of 1978, but only 7.85% of the exiting "successful students" in this study were black. Since the questionnaire requested no racial information, there was no way to assess reading scores, work loads or other data according to race. The racial data was simply noted and tallied by the investigator.

The investigator also noted and tallied deaf students who had interpreters with them. There was one in these advanced classes; twenty-eight had entered in the fall of 1978.

VI. DIVISIONS

Demographic data subgrouped by academic divisions is summarized in Table 9. (See page 14)

TABLE 9

DEMOGRAPHIC DATA: ACADEMIC DIVISIONS (N:828)

VARIABLE	APPRENTICE & TECH.	BUS. & MGMT.	FINE ARTS & COMM.	NURSING & ALL. HEALTH	LANG. LIT. & PHIL.	SOC/SCI. P.E. & HEALTH	SCI. & MATH	STATISTIC	D.F.	P
Number (%)	91 (11)	141 (17)	36 (4.3)	176 (21.3)	111 (13.4)	228 (27.5)	45 (5.4)			
Females (%)	1 (1.9)	91 (66.9)	13 (38.29)	148 (85.5)	80 (72.7)	136 (59.9)	21 (46.7)	X^2=198.86	6	0.
Males (%)	90 (98.9)	45 (33.1)	21 (61.8)	25 (14.5)	30 (27.3)	91 (40.1)	24 (53.3)			
Majors Included	0	6	7	2	10	10	16			
Programs Inc.	10	21	0	6	2	8	1			
Age Groups 17-22 Yrs. (%)	44 (48.89)	57 (42.22)	18 (56.25)	44 (25.73)	39 (36.45)	113 (50.44)	23 (53.49)			
23-30 Yrs. (%)	27 (30.00)	38 (28.15)	7 (21.88)	61 (35.67)	40 (37.38)	52 (23.21)	14 (32.56)	X^2= 39.72	12	.0001
30 Yrs. & Over (%)	19 (21.11)	40 (29.63)	7 (21.88)	66 (38.60)	28 (26.17)	59 (26.34)	6 (13.95)			
Mean Total Reading Raw Score (S.D.)	61.37 (24.24)	75.87 (28.34)	83.26 (34.71)	78.35 (21.12)	81.06 (25.36)	73.61 (27.69)	84.98 (28.82)	F = 7.22	6	.0000
I-E Score (S.D.)	8.89 (3.31)	10.46 (4.24)	10.57 (3.82)	10.29 (3.82)	9.91 (3.90)	9.04 (3.76)	8.56 (3.82)	F = 4.39	6	.0002
4-Yr. College? Likely (%)	18 (19.78)	45 (33.33)	17 (50.00)	55 (31.98)	75 (70.75)	137 (61.43)	38 (86.36)			
Maybe (%)	27 (29.67)	42 (31.11)	11 (32.35)	60 (34.88)	21 (19.81)	54 (24.22)	3 (6.81)	X^2= 39.72	12	.0001
Probably Not (%)	46 (50.55)	41 (30.37)	5 (14.71)	55 (31.98)	7 (6.60)	32 (14.35)	1 (2.27)			

As was noted earlier, a few divisions are heavily populated with one sex or the other. Nearly half the enrollment in most divisions is of students aged 17-22 years. Nursing and Allied Health is the exception. It has the least number of younger students, the greatest number of older students and the highest percentage of females.

Science and Math has the smallest number of older students and the highest mean reading scores. Since higher mean reading scores are generally positively related to older age in this study, Science and Math does not fit that overall pattern, for they generally have young students who read well.

The number of programs a division umbrellas seems to have some relationship to their average reading scores. Those divisions with few programs (Fine Arts and Communications, Language, Literature and Philosophy, and Science and Math) have the highest average reading scores.

Some demographic data for programs is summarized in Table 10 (page 16). Again, since the numbers in many of the subgroups are so very small, the data should serve as information only for those closely connected to the programs, possibly the program coordinators.

(Table 10 following)

TABLE 10

DIFFERENTIATING SUBGROUPS ACCORDING TO COLLEGE READING LEVEL* ON MEAN TOTAL VOCABULARY COMPREHENSION SCORES**

SUBGROUP	N	MEAN	***RS ± 76	S.D.
DIVISIONS				
Apprentice & Tech. Division	91	61.37	-	24.24
Business & Management Div.	141	75.87	-	28.34
Fine Arts & Comm. Div.	36	83.26	+	34.71
Nursing & Allied Health Division	176	78.35	+	21.12
Language, Lit. & Philosophy Div.	111	81.06	+	25.36
Social Science, P.E., Rec. Div.	228	73.61	-	27.69
Sci. & Math Div.	45	84.98	+	28.82
PROGRAMS				
Construction	4	50.50	-	17.08
Electronics	3	95.33	+	46.23
Industrial Tech.	6	88.17	+	33.83
Mechanical Tech.	63	58.65	-	22.89
Accounting	8	79.13	+	25.23
Banking Mgmt.	3	67.67	-	44.23
Bus. Data Proc.	31	83.39	+	29.09
Food Management	5	66.60	-	36.61
General Business	34	77.27	+	23.17
Bus. & Ind. Mgmt.	40	70.82	-	24.11
Paralegal Tech.	19	83.06	+	32.20
Merchandizing Adm.	7	66.00	-	23.78
Secretarial	22	72.27	-	22.11
Teacher Aide	9	61.78	-	26.93
Interpret. Deaf	10	103.00	+	36.81
Nursing (RN)	67	79.31	+	20.35
Assoc.Comm. School	10	59.80	-	16.63
Child Care	22	57.41	-	29.54
Criminal Justice	28	73.79	-	25.99
Fire Admin.	13	66.39	-	20.75
Labor Study	13	81.25	+	34.26
Recreation Leader	14	56.29	-	15.49
Soc. Work Tech.	28	68.32	-	25.58
Dental Assistant	14	68.36	-	10.85
Nursing (PN)	32	65.19	-	17.26
Medical Assistant	11	88.64	+	23.73
Emergency Medical	23	86.74	+	18.33
Gerontology	7	94.86	+	22.73
Dental Hygiene	41	82.78	+	24.32

TOTAL 587

SUBGROUP	N	MEAN	***RS ± 76	S.D.
AGE				
Ages 17-22	334	67.18	-	23.57
Ages 23-30	236	79.94	+	24.23
Ages Over 30	220	85.41	+	28.93
PRESENT EMPLOYMENT				
Acct./Bookkeeper	3	59.00	-	4.00
Sec'y./Recep.	58	78.88	+	22.43
Mgmt./Superv.	5	63.00	-	39.64
Business Owner	7	70.57	-	31.25
Sales Rep.	11	69.73	-	23.50
Radio/TV	4	53.50	-	15.93
Drafting	3	66.33	-	39.25
Auto Service	11	59.55	-	22.58
Data Processing	12	92.50	+	25.36
Bank Employee	5	58.60	-	13.80
Homemaker	6	87.40	+	38.89
Interpreter	2	134.50	+	19.09
Lab. Tech.	2	100.00	+	35.36
Law Enforcement	15	78.47	+	19.03
Security Guard	7	76.29	+	21.03
Musician	4	83.00	+	20.70
Nurse	12	72.50	-	12.54
Bus/Truck Driver	10	89.90	+	31.82
Social Welfare	6	79.17	+	19.22
Teacher	2	133.50	+	6.36
Teacher Aide	12	70.67	-	27.93
Skilled Trades	30	79.62	+	27.00
Fireman	8	72.00	-	21.55
Laborer	18	77.50	+	26.20
Semi-Skilled	25	79.92	+	30.82
Hospital Emp'.	28	68.79	-	16.09
Retail Cl./Stock	80	72.22	-	26.41
Food Service	24	72.87	-	17.21
Lab Assistant	10	78.10	+	23.45
Production	44	71.47	-	24.70
Tutor	21	79.43	+	23.63
Other	8	95.25	+	16.74

* 50 Percentile raw score on nationally normed table for grade 13

** Nelson-Denny Reading Test: Form A

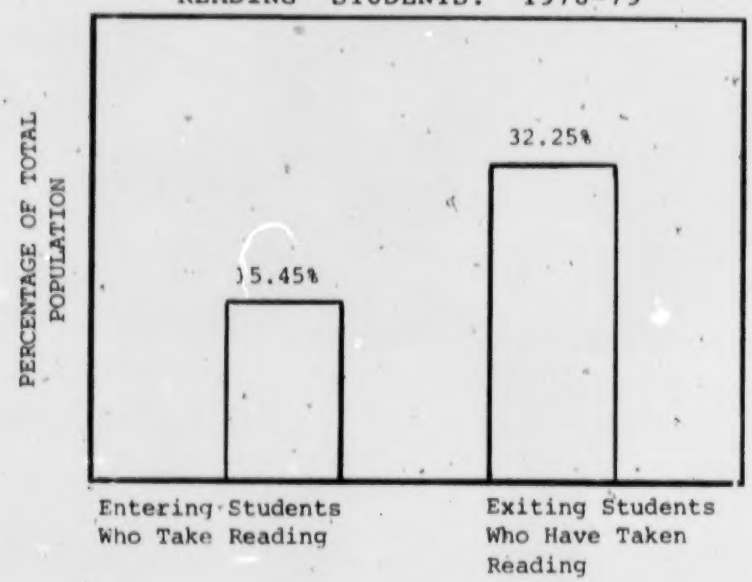
*** RS: Raw Scores

VII. READING IMPROVEMENT

Almost one-third (32.25%) of the "successful" students in this study had taken a reading improvement course, while only 15.45% of the entering freshmen in the fall of 1978 took a reading class. That semester was typical, with a characteristic number of reading enrollees. In other words, there are more than twice as many former "reading students" in the upper-level courses as there are in beginning courses. It would seem those students who take reading tend to remain at MCC at twice the rate as students who do not take reading.

FIGURE (2)

A COMPARISON OF THE NUMBER OF ENTERING & EXITING "READING" STUDENTS: 1978-79



If the "successful" students are divided into two groups, those who have taken a reading course and those who have not taken a reading course, their reading test scores appear as summarized below. (Table 11)

Table 11.

READING SUBSKILL SCORES* OF STUDENTS WHO HAVE TAKEN A READING COURSE COMPARED TO THOSE WHO HAVE NOT

	STUDENTS WHO TOOK READING			STUDENTS WHO DID NOT TAKE READING			STATISTICS		
READING SUBSKILL	N	Mean R.S.	S.D.	N	Mean R.S.	S.D.	t-value	D.F.	Signif.
Vocabulary	257	33.39 (12.9)**	14.72	540	38.86 (13.5)	15.41	4.75	795	.0000
Comprehension	255	34.04 (11.1)	12.50	530	40.11 (12.7)	12.15	6.29	783	.0000
Rate (words/min.)	253	260.65	94.51	525	263.23	86.49	.378	776	.7057
Total Voc-Comp.	255	67.49 (12.4)	25.42	530	79.15 (13.3)	26.09	5.92	783	.0000

*Nelson-Denny Reading Test: Form A
**Approximate grade levels in parentheses

It appears that those "successful" students who have taken a reading course score approximately one grade level below those students who have not taken a reading course in all subskills save speed. All other scores are significantly different.

However, the reader will remember (Page 4) that there were great reading score differences between the freshmen who took a reading improvement class and those who did not (9.5 vs. 12.0). Figures 3, 4 and 5 (See page 19) speak to that difference.

FIGURE (3)

A Comparison of the Vocabulary Scores, in Approximate Grade Levels of Entering and Exiting Students, 1978-79.

FIGURE (4)

A Comparison of the Comprehension Scores, in Approximate Grade Levels, of Entering and Exiting Students, 1978-79.

FIGURE (5)

A Comparison of the Total Reading Scores, in Approximate Grade Levels, of Entering and Exiting Students, 1978-79.

○ *DNTR - Did not take reading
● ** TR - Took reading

The above figures should be reviewed with extreme caution for two reasons: the first and second tests are different standardized reading tests (Cooperative English Tests: Reading Comprehension, Form B); and the (Nelson-Denny Reading Test: Form A) Although the correlation between the two tests is very high (r=.73), they should not be construed as equivalent measures. Secondly, grade levels are used and they are considered the least valid of all measures, albeit most understandable. However, since both groups took both tests and since both groups were evaluated in approximate grade levels, both groups' scores received equal treatment.

The "successful" students who took reading seem to have improved their reading scores more on every measure than have the students who did not take reading. However, the students who did not take a reading class had higher reading scores, on entrance and on exit, than those who took a reading class. The "reading" group makes more improvement in their reading scores but they never "catch up." All students seem to learn to read more difficult materials while at MCC, or the students who do not read well have dropped out along the way.

VIII. FUTURE EDUCATION PLANS

One demographic question asked each subject about his/her intention to continue studying at a four-year college. The students were instructed to mark one of the following responses: most likely, maybe, or probably not. On the following page are the results of that query. (Table 12)

TABLE 12

DEMOGRAPHIC DATA: FUTURE EDUCATION PLANS (N:790)

VARIABLE	MOST LIKELY GO TO 4-YR. COLLEGE	MAYBE GO TO 4-YR. COLLEGE	PROBABLY NOT GO TO 4-YR. COLLEGE	STATISTIC	D.F.	P
Number (%)	385 (47.8)	218 (27.1)	187 (23.2)			
Mean Voc.(Raw Score) (S.D.)	38.78 (14.73)	34.08 (14.67)	35.92 (15.85)	F = 7.27	789	.0007
Mean Comp.(Raw Score) (S.D.)	39.75 (12.83)	35.69 (13.14)	37.01 (12.55)	F = 7.50	776	.0006
Mean Rate(Words/Min.) (S.D.)	274.41 (87.60)	245.97 (80.10)	250.07 (93.83)	F = 9.05	768	.0001
Mean Total(Raw Score) (S.D.)	78.51 (25.57)	70.01 (25.44)	72.95 (26.19)	F = 8.14	776	.0003
Mean Age (S.D.)	25.45 (7.17)	26.83 (8.16)	27.81 (10.05)	F = 5.58	776	.0039
Mean Accum. Credits (S.D.)	47.23 (25.79)	42.07 (27.19)	41.13 (35.61)	F = 3.61	751	.027

Almost half (47.8%) of the subjects expect to continue their education past the community college level and only 23.2% have ruled out that possibility. The "most likely" group scored higher in all reading subskills than the other groups. Furthermore, the "probably not" group scored higher on every reading subskill than did the "maybe" group. That finding was surprising and difficult to explain.

IX. DISCUSSION AND CONCLUSION

National testing results from the ACT and SAT tests of high school seniors have generally declined by approximately two grade levels in the past seven years.* It could, therefore, be logically predicted that students entering MCC would read at about eleventh grade level, that is, two years below college freshman level. As a matter of fact, the mean total reading score for entering students who took the placement test at MCC in 1978 was 10.4 grade level, which is slightly below the SAT and ACT figures. Those national tests are generally taken by students aspiring to more selective colleges, so it is reasonable that the scores at MCC would be slightly lower, and they are. They are also probably more various.

With ever decreasing reading scores as a national trend and with a mean reading score of 10.4 for entering students, one would not predict college-level reading scores one or two years later. All other things being equal, one would expect students' reading skills to improve by one or two grade levels. Actually

*Ryor, John. "Declining SAT Scores" Today's Education, November/December, 1977, pages 6,8.

the results of this research show that students' mean total reading level is approximately 13.1, which is a 2.7 grade-level increase. Those results include students who are finishing one- and two-year courses of study. In other words, if reading skills generally improve one grade level in one year, the students who are in a one-year program should have improved one grade level and those pursuing a two-year program should have improved two grade levels. Averaging the scores of those two groups should have produced a reading score increase of more than one grade level and less than two, yet the difference is 2.7.

It is likely that there are various reasons for this phenomenon. It is probable that a higher proportion of students with less than adequate reading skills leave MCC. As a matter of fact, many students leave MCC before finishing their program or degree. In the fall of 1978, there were 6,243 freshmen, 2,561 sophomores, while the college graduated or certificated 1,232 students in 1979. The attrition rate between the freshman and sophomore years is 58.9% and at graduation it is 80.27%. In other words, using 1978-79 as a typical (random) year, only 19.73% of the students who begin studying at MCC finish. Table 13 below summarizes the differences among numbers of entering and exiting subgroups.

Table 13.

DEMOGRAPHIC SUBGROUPS: PERCENTAGE OF INCREASE OR DECREASE IN NUMBER

DEMOGRAPHIC SUBGROUPS	ENTERING FRESHMEN FALL, 1978 (%)	EXITING STUDENTS SPRING, 1979 (%)	DIFFERENCE
Males	46.4%	40.0%	- 6.4%
Females	53.6%	60.0%	+ 6.4%
Freshmen	69.21%		
Sophomores	28.39%		-40.82%
Degrees, Certificates		14.0%*	-55.21%
Black Students	18.93%	7.85%	-11.08%
"Reading" Students	15.45%	32.2 %	+16.75%

*Not the study group per se. Statistic from MCC Registrar

Only two groups increase: females and students who have taken a reading-improvement course.

There are, of course, many reasons for attrition, but they are not the focus of this study. The point is, that a huge proportion of entering students leave and it is reasonable to assume that a great proportion of that group are students who do not read well. They may either fail or quit. As a matter of fact, the frequency distribution (Appendix B) of the total reading scores shows that only 20% of the subjects (successful students) tested below 10.4. There must have been approximately 49% of the entering freshmen reading below 10.4 in order for that to be the average. Since there is about a 29% decrease in the number of lower reading scores, it may be safe to infer that many of those students with less adequate reading skills are gone, but those that leave tend not to be the students who took a reading course because their percentage increases.

The second reason for higher reading scores may be that students learn to read better while at MCC. As Figures 3, 4, and 5 (Page 19) illustrate, students in this study who said they had taken a reading course scored almost three grade levels above the freshmen who were taking a reading course that same semester. Students who had not taken a reading course scored 1.3 grade levels above all entering freshmen. Since both groups are populations rather than samples and since there appears to be no obvious reason why entering and exiting students in the 1978-79 school year should not be considered random groups, it may be reasonable to assume that students improve their reading skills while at MCC.

The third reason reading scores may be higher than expected is that students at MCC generally take longer to finish their programs or majors than is considered normal. If one studies the demographic data in Table 5 (Page 19), one will note that the mean year for entering college, for this group, was fall, 1974. That was four school-years previous to this study. These students are generally taking twice as long to reach their goal as is considered regular.

When one notes that the average credit load for these students is 10.9, and the mode is 12, a slower pace is substantiated. Therefore, on an average, students have twice as long to improve their reading skills and they are generally coping with a reduced credit load each semester. They have an extended time period to improve their reading and they have less than an average amount of material to read each semester.

The age groups in this study are quite large and show a definite trend. Students over 30 had a mean reading score significantly higher than students 23-30 years of age. They, in turn, had significantly higher scores than those students between 17-22 years of age. In other words, as age increased, so did the reading scores. Perhaps the older students have learned to read better because they have been reading longer. Perhaps MCC gets a wider variety of older students who cannot easily attend a more prestigious and selective college because they have jobs and families, but their test scores are equivalent to that more select group. Perhaps the national assessment tests are correct; students presently graduating from high school do not read as well as former high school graduates. One thing seems quite clear--the

skills of students over 30 years of age have not deteriorated, at least not comparatively. MCC is wise to recruit older students; they have the reading skills to benefit from academic instruction.

In summary, less than 20% of the students who attend MCC remain there through their sophomore year or graduation. Those students who stay, tend to be older and are more likely to be female. Most of those students work and they generally spend four years, rather than two, to complete their studies. They remain quite conservative about choosing their vocations according to traditional sex roles; most nursing students are women while most technology students are men. About 75% of the exiting students think they will continue their education at a four-year college.

Attrition at MCC is high; only two subgroups, females and students who have taken a reading-improvement course, increase their total percentage of the population from entrance to exit.

Mean reading scores are generally at college reading level for "successful" students.

X. PRACTICAL IMPLICATIONS OF THE STUDY

This research was meant to be pragmatic, that is, to reveal something about our "successful" students in order that we may encourage more "success" among students. That is also the major focus of the SDIP Grant and the Retention Committee. Therefore, this study might well be used by persons working on both of those projects. In addition, I have begun a list of practical suggestions which, I believe, evolve from this study. The list is not exhaustive. These data likely have other practical application. They were gathered to encourage that utilization.

"Successful" students tend to be older. Perhaps MCC should be actively recruiting older students through advertisements and meeting them in places where older persons gather, such as work places, ladies' groups, etc.

Most "successful" students are women. We should be actively recruiting homemakers.

Most students work, and most of those who work are office clerks, food handlers, factory workers, salesmen, auto service workers, data processors, retail clerks, homemakers, law enforcement and security workers, nurses, bus and truck drivers, skilled tradesmen and hospital employees of various sorts. In other words, MCC should be recruiting in places where these jobs are done. Those people evidently want to learn something more or something else.

Since students in this study were averaging four years in attendance at MCC, a significant number of them were taking more than four years to complete their studies. Does that not indicate that we should be trying to contact students who left MCC at some time in the past and invite them to return? If we do that, should we not publicize a "forgiveness" procedure whereby returning students may petition to change failing grades to "W's" or make sure that students know that repeating a course replaces the former grade?

Students in this study remain very traditional about choosing careers that are generally characterized as "women's" jobs or "men's" jobs. Perhaps that is their choice, but are we at MCC making all students aware that they have other options--as many as are listed in the catalog?

Older students tested higher on verbal skills than did younger students. Those statistics should be known by senior citizens' groups and women who are looking for careers after the children are of school age or grown and gone. A great number of older students are fearful that they have lost their ability to deal with books and such.

It is obvious that a number of our students attend MCC because they enjoy learning and attending classes is recreational. They have many more credits than is necessary to graduate. They often mention no career or education goal. People in the community should know that they can audit or take for credit literature classes, solar energy classes, psychology classes or the many other classes MCC offers.

Most of our students (76%) think they may go on to a four-year college. I do not believe that the community, and perhaps the faculty, realizes this. I believe our image is more vocational than academic. These statistics do not support that image.

Only 21% of the students in this study read at 10.4 grade level or below; yet that was the average placement test score of the entering freshmen at MCC that same year. Evidently students need to read well to be successful at MCC. Entering students should know that the middle majority (Q_1 through Q_2) of successful students at MCC read between grade levels 11.1 and 14+. If students knew this, they might make better decisions about college courses and occupations.

On the other hand, there were 68 students in this study who tested below high school level (grade levels -7.0 through 8.9). Evidently not all programs require verbal skills. Those students with other skills need to be recognized and educated at MCC also.

Black students and deaf students are not succeeding at a rate commensurate with others. Why?

Although students who take reading courses never learn to read as well, on the average, as those students who do not take a reading course, "reading students" tend to persist. Perhaps the process is one of self-selection, i.e., students who take the time to prepare themselves for future studies by taking a reading course are the students who

will always prepare--for all classes and tasks. Perhaps the students who know they don't read well and decide against a reading-improvement course have come to MCC for reasons other than academic success, e.g., pressure from parents, monies from various funding sources, social reasons, to "give it a try," etc. At any rate, perhaps entering students should have the statistical information about "reading students."

Since the majority of incoming students are 17-20 years of age and since the majority (58%) of successful students are 23 and older, it seems obvious that younger students are less focused about their education than older students. The years of 17-23 are years when one usually leaves home, gets a "serious" job, marries, has children and on and on. It's a time of major changes. When the "dust settles," people come back to college. Perhaps MCC should consider conveniences we might create for those students to make their transitions smooth and their welcome warm. Maybe we need to include a number of these returning students in our SDIP and Retention Committees.

Perhaps only the "better reading students" are staying at MCC, or maybe a wider sample of "reading students" are staying but they are taking greatly reduced credit loads each semester. Either of these possibilities would constitute valuable research for the college.

On the other hand, students who don't take reading have much higher attrition rates. Do the less-capable readers of that group drop out? That, also, is a fertile research area.

APPENDIX A

STUDENT QUESTIONNAIRE

Class name and number_____ Date_____

Program_____ or Major_____

Sex_____ Age_____

Approximate number of credit hours you have now completed_____

When did you begin college?_____

How many credit hours are you taking this semester?_____

Are you employed? _____no _____part-time _____hours per week

_____yes _____full-time

Briefly describe your job_____

Have you taken a reading course? _____no _____yes

Do you intend to go on to a 4-yr. college? _____most likely

_____maybe

_____probably not

APPENDIX B

FREQUENCY DISTRIBUTION AND SUMMARY STATISTICS FOR TOTAL VOCABULARY-COMPREHENSION SCORES
NELSON-DENNY READING TEST: FORM A (N:815)

R.S.	f	CUM. f	%ile RANK	R.S.	f	CUM. f	%ile RANK	GRADE EQUIV.	R.S.	f	CUM. f	%ile RANK	GRADE EQUIV.
162	1	815	100.0	99	1	652	80.0		54	9	188	23.1	10.7
152	1	814	99.9	98	6	651	79.9		53	8	179	22.0	10.6
148	1	813	99.8	97	8	645	79.1		52	8	171	21.0	10.4
147	1	812	99.6	96	7	637	78.2		51	8	163	20.0	10.3
144	1	811	99.5	95	7	730	77.3		50	13	155	19.0	10.2
142	1	810	99.4	Q3 94	8	623	76.4		49	8	142	17.4	10.0
141	3	809	99.3	93	11	615	75.5		48	6	134	16.4	9.9
139	1	806	98.9	92	10	604	74.1		47	5	128	15.7	9.8
138	2	805	98.8	91	5	594	72.9		46	6	123	15.1	9.7
137	3	803	98.5	90	7	589	72.3		45	6	117	14.4	9.6
136	1	800	98.2	89	8	582	71.4		44	7	111	13.6	9.5
135	1	799	98.0	88	12	574	70.4	14.0**	43	6	104	12.8	9.3
133	2	798	97.9	87	14	562	69.0	13.9	42	14	96	12.0	9.2
132	1	796	97.7	86	10	548	67.2	13.8	41	8	84	10.3	9.1
131	1	795	97.5	85	9	538	66.0	13.8	40	8	76	9.3	9.0*
130	2	794	97.4	84	10	529	64.9	13.7	39	1	68	8.3	8.9*
129	3	792	97.2	83	13	519	63.7	13.6	38	9	67	8.2	8.8*
128	1	789	96.8	82	13	506	62.1	13.6	37	4	58	7.1	8.6*
127	3	788	96.7	81	16	493	60.5	13.5	36	4	54	6.6	8.5*
126	2	785	96.3	80	8	477	58.5	13.4	35	6	50	6.1	8.4*
125	3	783	96.1	79	13	469	57.5	13.3	34	6	44	5.4	8.3*
124	4	780	95.7	78	13	456	56.0	13.3	33	4	38	4.7	8.2*
123	4	776	95.2	77	7	443	54.4	13.2	32	5	34	4.2	8.1*
122	1	772	94.7	76	12	436	53.5	13.1	31	4	29	3.6	7.9*
121	2	771	94.6	$\bar{x}$ 75	18	424	52.0	13.1	30	3	25	3.1	7.8*
120	9	769	94.4	74	6	406	49.8	13.0	29	3	22	2.7	7.7*
119	3	760	93.3	73	15	400	49.1	12.9	28	4	19	2.3	7.6*
118	2	757	92.9	72	20	385	47.2	12.8	27	1	15	1.8	7.5*
117	1	755	92.6	71	10	365	44.8	12.7	26	3	14	1.7	7.4*
116	6	754	92.5	70	9	355	43.6	12.6	25	3	11	1.3	7.2*
114	1	748	91.8	69	11	346	42.5	12.6	24	1	8	1.0	7.1*
113	4	747	91.7	68	10	335	41.1	12.5	23	1	7	.9	7.0*
112	7	743	91.2	67	11	325	39.9	12.4	21	1	6	.7	
111	6	736	90.3	66	10	314	38.5	12.3	20	1	5	.6	
110	6	730	89.6	65	11	304	37.3	12.2	16	2	4	.5	
109	8	724	88.8	64	17	293	36.0	12.1	12	1	2	.2	
108	6	716	87.9	63	17	276	33.9	12.0	6	1	1	.1	
107	5	710	87.1	62	6	259	31.8	11.9					
106	10	705	86.5	61	11	253	31.0	11.7					
105	10	695	85.3	60	10	242	29.7	11.6					
104	3	685	84.0	59	12	232	28.5	11.4					
103	7	682	83.7	58	7	220	27.0	11.3					
102	10	675	82.8	Q1 57	6	213	26.1	11.1					
101	6	665	81.6	56	9	207	25.4	11.0					
100	7	659	80.9	55	10	198	24.3	10.9					

* Extrapolated

** Since grade levels are generally considered less reliable at the higher grade levels, this table does not go beyond the 14.0 level. (Brown 1969, page 20)

APPENDIX C

READING SCORES OF SUBGROUPS ACCORDING TO ACADEMIC DIVISION & SEX

SUBGROUP	VOCABULARY				COMPREHENSION				RATE (W.P.M.)				TOTAL VOC-COMP			
	Min. Raw Score	Max. Raw Score	Mean Raw Score	S.D.	Min. Raw Score	Max. Raw Score	Mean Raw Score	S.D.	Min. Raw Score	Max. Raw Score	Mean Raw Score	S.D.	Min. Raw Score	Max. Raw Score	Mean Raw Score	S.D.
Apprentice and Tech. Division	8.00 (-01)*	68.00 (94)	29.48 (18)	13.20 N:91	2.00 (-01)	62.00 (91)	31.89 (13)	12.23 N:91	82.00 (01)	524.00 (98)	212.62 (20)	86.36 N:86	12.00 (-01)	124.00 (90)	61.37 (14)	24.24 N:91
Business & Mgmt. Div.	8.00 (-01)	90.00 (99+)	37.31 (34)	16.89 N:141	7.00 (-01)	66.00 (97)	38.48 (27)	13.58 N:135	94.00 (02)	639.00 (99+)	260.96 (43)	89.53 N:138	20.00 (-01)	152.00 (99+)	75.87 (29)	28.34 N:135
Fine Arts & Communication Div.	7.00 (-01)	92.00 (99+)	41.47 (46)	21.49 N:36	12.00 (-01)	70.00 (99+)	38.71 (27)	14.72 N:31	128.00 (04)	639.00 (99+)	274.03 (49)	120.21 N:33	25.00 (-01)	162.00 (99+)	83.26 (39)	34.71 N:31
Nursing & Allied Health Div.	13.00 (01)	73.00 (96)	38.57 (38)	11.99 N:176	6.00 (-01)	70.00 (99+)	39.77 (29)	10.92 N:176	74.00 (-01)	639.00 (99+)	265.60 (46)	87.05 N:173	21.00 (-01)	141.00 (97)	78.35 (33)	21.12 N:176
Lang., Lit. & Philosophy Division	7.00 (-01)	92.00 (99+)	40.85 (44)	15.59 N:111	6.00 (-01)	68.00 (99)	40.22 (31)	12.49 N:111	74.00 (-01)	513.00 (97)	283.31 (53)	82.96 N:109	25.00 (-01)	148.00 (99+)	81.06 (36)	25.36 N:111
Soc. Science Physical Ed. Health & Rec. Div.	4.00 (-01)	83.00 (98)	36.25 (32)	15.83 N:228	2.00 (-01)	68.00 (99)	37.41 (24)	13.79 N:226	82.00 (01)	571.00 (99)	264.08 (45)	82.76 N:220	6.00 (-01)	142.00 (97)	73.62 (26)	27.69 N:226
Science & Math Div.	8.00 (-01)	87.00 (99+)	41.91 (47)	16.89 N:45	8.00 (-01)	70.00 (99)	43.07 (38)	13.89 N:45	150.00 (05)	639.00 (99+)	291.04 (57)	104.68 N:45	30.00 (-01)	147.00 (99+)	84.98 (41)	28.82 N:45
Females	4.00 (-01)	92.00 (99+)	38.07 (36)	15.22 N:490	2.00 (-01)	70.00 (99)	39.22 (28)	12.56 N:487	74.00 (-01)	639.00 (99+)	264.60 (45)	79.04 N:478	6.00 (-01)	162.00 (99+)	77.32 (31)	25.87 N:487
Males	6.00 (-01)	90.00 (99+)	36.41 (32)	16.03 N:326	2.00 (-01)	70.00 (99)	36.89 (23)	13.76 N:317	74.00 (-01)	639.00 (99+)	259.70 (42)	102.56 N:317	12.00 (-01)	152.00 (99+)	73.39 (26)	27.83 N:317)

*Percentiles are expressed in parentheses below the raw score. They are the percentile rank of scores for grade 14 (Brown, 1960)

APPENDIX D

A COMPARISON OF SUBGROUPS MEAN TOTAL READING SCORES*

SUBGROUP	MEAN RAW SCORE	S.D.
Divisions (Total Group)	75.65	26.79
Occupational Programs	73.51	25.97
Employed Students	76.34	25.56

*Nelson-Denny Reading Test: Form A

APPENDIX E

DEMOGRAPHIC DATA: FEMALE AND MALE

VARIABLE	FEMALES	MALES	STATISTIC	D.F.	P
Number (%) total)	490 (60%)	326 (40%)			
Mean Age	27.3	25.2	t = 3.60	799	.0003
Vocabulary R.S. (S.D.)	38.07 (15.22)	36.41 (16.03)	t = 1.49	814	N.S.
Comprehension R.S. (S.D.)	39.22 (12.56)	36.89 (13.76)	t = 2.48	802	.01
Reading Rate: (WPM) (S.D.)	264.60 (79.04)	259.70 (102.56)	t = .76	793	N.S.
Total Reading R.S. (S.D.)	77.32 (25.87)	73.39 (27.83)	t = 2.04	802	.04
I-E Scores (S.D.)	9.95 (3.87)	9.29 (3.86)	t = 2.39	806	.01
Took Reading Class (% total) (% sex)	151 (59.00) (31.7)	105 (41.00) (33.1)	X^2 = 2.19	1	N.S.
Current Credit Load 1-5 Credits N (%)	$\bar{x}$:10.80 50 (10.5)	$\bar{x}$:11.22 41 (13.3)			
6-10 Credits N (%)	151 (31.9)	68 (22.1)	X^2 = 21.44	3	.0001
11-15 Credits N (%)	193 (40.7)	168 (54.5)			
16+ Credits N (%)	80 (16.9)	31 (10.1)			
Employed N (%)	259 (51.5)	244 (48.5)	X^2 = 48.68	1	.0000
Full-time N (%)	77 (30.4)	161 (65.7)	X^2 = 62.09	1	.0000
Part-time N (%)	176 (68.6)	84 (34.3)			
Go on 4-Yr. College? Most Likely (N) (% total) (% sex)	226 (28.2) (47.0)	158 (19.7) (49.25)			
Maybe (N) (% total) (% sex)	145 (18.1) (35.1)	72 (9.0) (22.4)	X^2 = 7.71	3	.05
Probably Not (N) (% total) (% sex)	100 (12.5) (20.8)	86 (10.7) (26.8)			

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